



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/579,266

03/05/2007

Valerie Smits

F-889 (31223.0121)

1309

25264 7590 04/12/2011
FINA TECHNOLOGY INC
PO BOX 674412
HOUSTON, TX 77267-4412

EXAMINER

ROGERS, MARTIN K

ART UNIT

PAPER NUMBER

1747

MAIL DATE

DELIVERY MODE

04/12/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/579,266
Filing Date: March 05, 2007
Appellant(s): SMITS, VALERIE

T. R. Kruger
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 1/21/2011 appealing from the Office action mailed 8/31/2010.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

11-19 and 22 are pending and rejected.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being

Art Unit: 1747

maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

6506919	Oh et al.	01/2003
4308086	Valyi	12/1981
4079104	Dickson et al.	03/1978
JP 2002-275330	Isao	09/2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 11-19 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Isao (Japanese Kokai 2002-275330 already of record) with Oh et al. (USP 6506919) used to show inherency.

In regards to claim 11, Isao discloses a method for the production of a hollow article comprising providing a polypropylene polymer having a melt flow index between 0.5 and 50 g/10 minutes produced by the polymerization of propylene in the presence of a metallocene catalyst having either C1 or C2 symmetry (Formula 2, [0009], and [0027]), subjecting the propylene polymer to an injection-stretch-blow molding operation to mold said polymer into a hollow article having walls formed of the polymer ([0001] and [0002]) to form a container product ([0002]). Isao does not expressly provide any examples in which an isotactic polymer within the required range is produced. However, the tacticity of the polymer is governed by the catalyst used to create it. Therefore, because Isao discloses that the disclosed catalysts create isotactic polymers ([0096] and [0097]), if the catalysts of Isao were used to create a polymer with an MFI within the range required by Applicant (as disclosed by Isao on [0006]), this polymer would also be isotactic. Oh shows in Column 1, lines 54-55 that the catalyst being used controls the tacticity of the polymer (Column 1, lines 54-55).

In any event, because Isao discloses creating isotactic polymers in many examples ([0096] and [0097]), and because Isao discloses creating polymers which are within Applicant's required MFI range ([0006]), one of ordinary skill would have found it obvious to also make isotactic polymers within Applicant's claimed range.

Art Unit: 1747

It is the examiner's position that because all of the positively recited process steps are met by the disclosure of Isao, the product produced by these steps will be expected to have the same properties being required by the claims when compared to a Zeigler Natta catalyst system.

In regards to claim 12, Isao further discloses that the catalyst have the required molecular structure (Formula 2 and [0009]).

In regards to claims 13-15, Isao further discloses that the polypropylene include 0 to 5 weight percent ethylene ([0006] and [0012]).

In regards to claim 16, Isao further discloses that the transmission metal be selected from the fourth column of the periodic table ([0009]).

In regards to claims 17-19, Isao further discloses that the catalyst component be isopropylidene-(3-tert-butyl-5-methyl-cyclopentadienyl)(fluorenyl) zirconium dichloride (Formula 2 and [0009]).

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Isao as applied to claim 11 above, and further in view of Valyi (USP 4308086) and Dickson et al. (USP 4079104).

In regards to claim 22, Isao discloses molding the parison, reheating it, and then stretch blow molding ([0002]), but is silent as to the geometry of the injection mold used and how the parison is reheated.

Valyi discloses that it is well known in the art to injection mold parisons in a multicavity mold for the benefit of reducing the hazard of deflecting the mold support structure (Column 11, lines 29-30).

Dickson discloses that it is well known to heat parisons with reflected radiant heat (Figure 1: 60, 62, 64, 66). Note that because the heating and blow molding are performed using the same parison support (Column 4, lines 2-3), heater and blow mold are part of the same molding apparatus.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the blow molding process of Isao with the multicavity parison mold disclosed by Valyi and the heating method of Dickson because Valyi and Dickson disclose well known methods of accomplishing the steps required by Isao.

(10) Response to Argument

Appellant argues on page 3 of the brief that "the examiner acknowledges that Isao does not disclose creating an isotactic polymer having the claimed melt flow. See, Office Action dated February 3, 2010 at page 2, last paragraph." The examiner respectfully submits that Appellant is misquoting the examiner. In the cited section of the Office Action, the examiner stated that Isao does not explicitly disclose the claimed features. However, as stated in the office action mailed on 8/31/2010, it is the

Art Unit: 1747

examiner's position that the disclosure of Isao inherently encompasses all of the claimed features and therefore qualifies as prior art under 35 USC 102. In addition, based on the examples of Isao, it is the examiner's position that a skilled artisan would have found it obvious to perform the claimed steps.

Appellant argues on pages 3-4 of the brief that "Appellants agree that the catalyst being used controls the tacticity of the polymer. However, Appellants fail to understand how that supports the Examiner's position. There is no support in the cited art for the position that a specific MFI polymer must be isotactic...Furthermore, as demonstrated by the Examiner, it is the catalyst that dictates tacticity of a polymer, and not the melt flow rate." The examiner notes that Appellant appears to have misunderstood the rejection.

Isao discloses creating a polypropylene with the claimed MFI ([0006] of Isao). Appellant does argue this.

The catalysts used by Isao to create this polypropylene read on those being claimed by Appellant ([0008] and [0009]). Appellant does not argue this.

The specific catalyst used dictates the tacticity of the polymer (as evidenced by Column 1, lines 54-55 of Oh, already of record). Appellant not only does not deny this but affirms it with the statements made on the bottom of page 3 of the brief.

Therefore, because Isao discloses producing a polypropylene with the claimed MFI through a reaction that uses the claimed catalyst, and because the catalyst controls

Art Unit: 1747

the tacticity of the polymer, it was the examiner's position in the Office Action mailed on 8/31/2010 that the polypropylene will have the required combination of MFI and isotacticity.

Appellant argues on page 4 of the brief that "Multiple catalysts do not necessarily form the same tacticity polymer, nor does the examiner assert that such is taught in the cited art. In fact, the teaching in Isao that the claimed melt flow rate can be found in random copolymers, but no teaching of isotactic polymers having the claimed melt flow index exists in Isao, could in fact lead those in the art away from the present claimed features." The examiner finds this argument to be unclear. While it may be true that multiple catalysts are capable of forming a polymer with the same or similar melt flow rate, Isao is explicitly concerned with using catalysts which are identical to those being claimed by Appellant (Isao [0008] and [0009]). Furthermore, the examples of Isao provide evidence that the catalysts of Isao produce isotactic polymers ([0096] and [0097], note that the notation "mmmm" from Isao symbolizes an isotactic polymer).

In any event, the examiner further rejected the claims under 35 USC 103 based on Isao. For this rejection the examiner noted that Isao disclosed creating isotactic polymers in multiple examples ([0096] and [0097]). In the example disclosed on [0097] of Isao, Isao discloses creating a polypropylene polymer with a MFI of 12, which is only 2 more than the maximum value of the claimed range. In addition to this, Isao discloses in the specification that the invention is concerned with making polypropylenes within

Art Unit: 1747

Appellant's claimed range ([0006]). Therefore, based on the fact that Isao discloses using the claimed catalyst to make isotactic polypropylene polymers with MFIs that are extremely similar to the claimed range in the examples, in addition to the fact that the general disclosure of Isao discloses using the claimed catalyst to create polymers that are within the claimed MFI range, the examiner maintains that a skilled artisan would have found it obvious to use the claimed catalyst to make isotactic polymers that are within the MFI range claimed by Appellant.

Appellant argues on pages 4-5 of the brief that the examiner has not addressed the limitation of the claimed reaction having a reduced cycle time compared to a Ziegler Natta system because the examiner has provided "...no support for the logic that a reduced melting temperature directly leads to reduced cycle times." Although the examiner respectfully disagrees with this because column 1, line 49 of Fischer (already of record) was cited as evidence in the Office Action mailed on 2/3/2010, the examiner notes that this discussion is moot because Appellant appears to be arguing the grounds of rejection from the office action mailed on 2/3/2010. The claims currently stand rejected for the reasoning presented in office action 8/31/2010.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Art Unit: 1747

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Martin Rogers/

/Richard Crispino/
Richard Crispino
Supervisory Patent Examiner, Art Unit 1747

Conferees:

/R. C./
Richard Crispino
Supervisory Patent Examiner, Art Unit 1747

/S. B./
Shrive Beck
QAS, TC 1700